

Connecting via Winsock to STN

STN SEARCH

10/560,577

Welcome to STN International! Enter x:x

~~LOGIN: 883PTASXPL04~~

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 MAY 01 New CAS web site launched  
NEWS 3 MAY 08 CA/CAPLUS Indian patent publication number format defined  
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields  
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data  
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload  
NEWS 7 MAY 21 CA/CAPLUS enhanced with additional kind codes for German patents  
NEWS 8 MAY 22 CA/CAPLUS enhanced with IPC reclassification in Japanese patents  
NEWS 9 JUN 27 CA/CAPLUS enhanced with pre-1967 CAS Registry Numbers  
NEWS 10 JUN 29 STN Viewer now available  
NEWS 11 JUN 29 STN Express, Version 8.2, now available  
NEWS 12 JUL 02 LEMBASE coverage updated  
NEWS 13 JUL 02 LMEDLINE coverage updated  
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names  
NEWS 15 JUL 02 CHEMCATS accession numbers revised  
NEWS 16 JUL 02 CA/CAPLUS enhanced with utility model patents from China  
NEWS 17 JUL 16 CAPLUS enhanced with French and German abstracts  
NEWS 18 JUL 18 CA/CAPLUS patent coverage enhanced  
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification  
NEWS 20 JUL 30 USGENE now available on STN  
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
NEWS 22 AUG 06 BEILSTEIN updated with new compounds  
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition  
NEWS 24 AUG 13 CA/CAPLUS enhanced with additional kind codes for granted patents  
NEWS 25 AUG 20 CA/CAPLUS enhanced with CAS indexing in pre-1907 records  
NEWS 26 AUG 27 Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB  
NEWS 27 AUG 27 USPATOLD now available on STN  
NEWS 28 AUG 28 CAS REGISTRY enhanced with additional experimental spectral property data  
  
NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 13:56:07 ON 29 AUG 2007

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 13:56:30 ON 29 AUG 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6

DICTIONARY FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

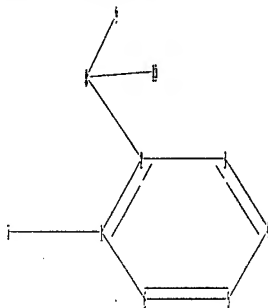
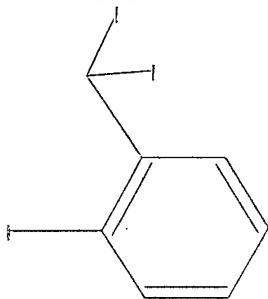
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10560577.str



chain nodes :

```

7  8  9  10
ring nodes :
1  2  3  4  5  6
chain bonds :
1-7  2-8  8-9  8-10
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6
exact/norm bonds :
1-7
exact bonds :
2-8  8-9  8-10
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6
isolated ring systems :
containing 1 :

```

Match level :

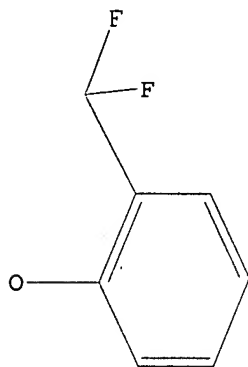
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 13:56:44 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 2220 TO ITERATE

90.1% PROCESSED 2000 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 41574 TO 47226

PROJECTED ANSWERS: 9624 TO 12442

L2 50 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 13:57:08 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 45450 TO ITERATE

100.0% PROCESSED 45450 ITERATIONS 10842 ANSWERS  
SEARCH TIME: 00.00.01

L3 10842 SEA SSS FUL L1

=> FIL CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

172.31

FILE 'CAPLUS' ENTERED AT 13:57:15 ON 29 AUG 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 29 Aug 2007 VOL 147 ISS 10

FILE LAST UPDATED: 28 Aug 2007 (20070828/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 13

L4 2663 L3

=> s 14 and (reporter or label or dye? or chromophore or fluorophore or cyanine or rhodamine or fluoresceine)

51449 REPORTER

2062 REPORTERS

52598 REPORTER

(REPORTER OR REPORTERS)

65886 LABEL

23008 LABELS

79274 LABEL

(LABEL OR LABELS)

392055 DYE?

26449 CHROMOPHORE

19197 CHROMOPHORES

37209 CHROMOPHORE

(CHROMOPHORE OR CHROMOPHORES)

8243 FLUOROPHORE

4980 FLUOROPHORES

11449 FLUOROPHORE

(FLUOROPHORE OR FLUOROPHORES)

15873 CYANINE

1412 CYANINES

16298 CYANINE

(CYANINE OR CYANINES)

22074 RHODAMINE

587 RHODAMINES

22230 RHODAMINE

(RHODAMINE OR RHODAMINES)  
 161 FLUORESCENCE  
 1 FLUORESCENCES  
 161 FLUORESCENCE  
 (FLUORESCENCE OR FLUORESCENCES)  
 L5 78 L4 AND (REPORTER OR LABEL OR DYE OR CHROMOPHORE OR FLUOROPHORE  
 OR CYANINE OR RHODAMINE OR FLUORESCENCE)

=> s 15 and enzyme  
 825251 ENZYME  
 469820 ENZYMES  
 1039299 ENZYME

(ENZYME OR ENZYMES)  
 L6 6 L5 AND ENZYME

=> d 16 ibib abs hitstr tot

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:1279865 CAPLUS  
 DOCUMENT NUMBER: 146:57589  
 TITLE: Luminogenic and fluorogenic compounds and methods to  
 detect molecules or conditions  
 INVENTOR(S): Daily, William; Hawkins, Erika; Klaubert, Dieter; Liu,  
 Jianquan; Meisenheimer, Poncho; Scurria, Michael;  
 Shultz, John W.; Unch, James; Wood, Keith V.; Zhou,  
 Wenhui; Valley, Michael P.; Cali, James J.  
 PATENT ASSIGNEE(S): Promega Corporation, USA  
 SOURCE: PCT Int. Appl., 328pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006130551	A2	20061207	WO 2006-US20731	20060530
WO 2006130551	A8	20070201		
WO 2006130551	A3	20070503		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 2007015790	A1	20070118	US 2006-444145	20060531
PRIORITY APPLN. INFO.:			US 2005-685957P	P 20050531
			US 2005-693034P	P 20050621
			US 2005-692925P	P 20050622
			US 2006-790455P	P 20060407

OTHER SOURCE(S): MARPAT 146:57589

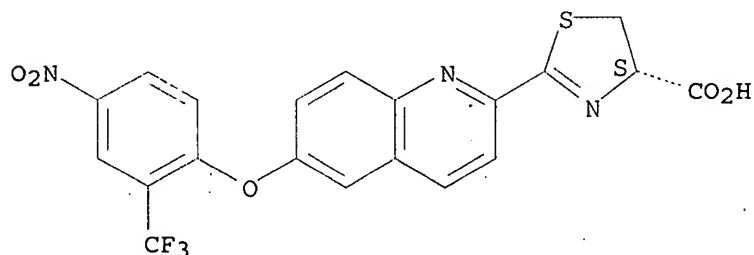
AB A method to detect the presence or amount of at least one mol. in a sample  
 which employs a derivative of luciferin or a derivative of a fluorophore  
 is provided.

IT 916661-05-7P

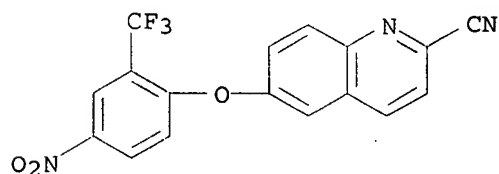
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL  
 (Biological study); PREP (Preparation); USES (Uses)  
 (luminogenic and fluorogenic compds. and methods to detect mols. or  
 conditions)

RN 916661-05-7 CAPLUS  
CN 4-Thiazolecarboxylic acid, 4,5-dihydro-2-[6-[4-nitro-2-(trifluoromethyl)phenoxy]-2-quinolinyl]-, (4S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 916661-06-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(luminogenic and fluorogenic compds. and methods to detect mols. or conditions)  
RN 916661-06-8 CAPLUS  
CN 2-Quinolinecarbonitrile, 6-[4-nitro-2-(trifluoromethyl)phenoxy]- (CA INDEX NAME)



L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:1301834 CAPLUS  
DOCUMENT NUMBER: 144:102745  
TITLE: Synthesis and evaluation of novel enhanced gene reporter molecules: Détection of  $\beta$ -galactosidase activity using  $^{19}\text{F}$  NMR of trifluoromethylated aryl  $\beta$ -D-galactopyranosides  
AUTHOR(S): Yu, Jianxin; Liu, Li; Kodibagkar, Vikram D.; Cui, Weina; Mason, Ralph P.  
CORPORATE SOURCE: Department of Radiology, The University of Texas Southwestern Medical Center at Dallas, Dallas, TX, USA  
SOURCE: Bioorganic & Medicinal Chemistry (2006), 14(2), 326-333  
CODEN: BMECEP; ISSN: 0968-0896  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 144:102745  
AB Gene therapy has emerged as a promising strategy for treatment of various diseases, but there is a pressing need for the development of non-invasive reporter techniques based on appropriate mols. and imaging modalities to assay gene expression. The authors now report the design, synthesis, and evaluation of novel enhanced reporter mols., which reveal lacZ gene expression: trifluoromethylated aryl  $\beta$ -D-galactopyranosides. A series of five mol. structures were screened in solution and with stably transfected lacZ expressing human MCF7 breast cancer cells in vitro. P-Trifluoromethyl-o-nitrophenyl  $\beta$ -D-galactopyranoside (PCF3ONPG) was found to exhibit valuable properties including a single  $^{19}\text{F}$  NMR signal, stability in aqueous solution and with wild type cells, but a chemical shift response to enzyme

cleavage ( $\Delta\delta = 1.14$  ppm) in breast cancer cells transfected to stably express lacZ.

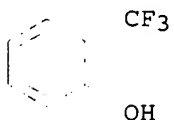
IT 444-30-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(phase transfer preparation of trifluoromethylated aryl  $\beta$ -D-galactopyranosides and use as  $^{19}\text{F}$  NMR reporter mols. for detection of gene lacZ  $\beta$ -galactosidase expression in MCF7 breast cancer cells)

RN 444-30-4 CAPLUS

CN Phenol, 2-(trifluoromethyl)- (CA INDEX NAME)



IT 872855-76-0P

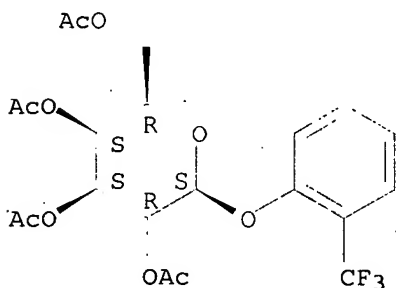
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(phase transfer preparation of trifluoromethylated aryl  $\beta$ -D-galactopyranosides and use as  $^{19}\text{F}$  NMR reporter mols. for detection of gene lacZ  $\beta$ -galactosidase expression in MCF7 breast cancer cells)

RN 872855-76-0 CAPLUS

CN  $\beta$ -D-Galactopyranoside, 2-(trifluoromethyl)phenyl, tetraacetate (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



IT 872855-81-7P

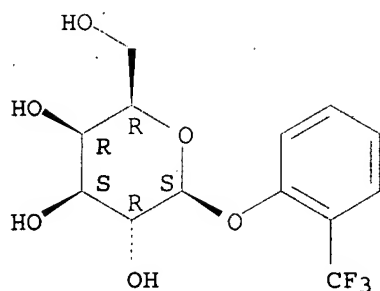
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(reporter substrate; phase transfer preparation of trifluoromethylated aryl  $\beta$ -D-galactopyranosides and use as  $^{19}\text{F}$  NMR reporter mols. for detection of gene lacZ  $\beta$ -galactosidase expression in MCF7 breast cancer cells)

RN 872855-81-7 CAPLUS

CN  $\beta$ -D-Galactopyranoside, 2-(trifluoromethyl)phenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:858562 CAPLUS

DOCUMENT NUMBER: 142:34367

TITLE: Mechanism-based Fluorescent Labeling of  $\beta$ -Galactosidases: An Efficient Method in Proteomics for Glycoside Hydrolases

AUTHOR(S): Kuroguchi, Masaki; Nishimura, Shin-Ichiro; Lee, Yuan Chuan

CORPORATE SOURCE: Division of Biological Sciences, Graduate School of Science, Frontier Research Center for Post-Genomic Science and Technology, Hokkaido University, Sapporo, 001-0021, Japan

SOURCE: Journal of Biological Chemistry (2004), 279(43), 44704-44712

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:34367

AB (4-N-5-Dimethylaminonaphthalene-1-sulfonyl-2-difluoromethylphenyl)- $\beta$ -D-galactopyranoside was synthesized and successfully tested on  $\beta$ -galactosidases from *Xanthomonas manihotis*, *Escherichia coli*, and *Bacillus circulans* for the rapid identification of the catalytic site. Reaction of the irreversible inhibitor with enzymes proceeded to afford a fluorescence-labeled protein suitable for further high throughput characterization by using antidansyl antibody and matrix-assisted laser desorption ionization time-of-flight/time-of-flight (MALDI-TOF/TOF). Specific probing by a fluorescent aglycon greatly facilitated identification of the labeled peptide fragments from  $\beta$ -galactosidases. It was demonstrated by using *X. manihotis*  $\beta$ -galactosidase that the Arg-58 residue, which is located within a sequence of 56IPRAYWKD63, was labeled by nucleophilic attack of the guanidinyll group. This sequence including Arg-58 (Leu-46 to Tyr-194) was similar to that (Met-1 to Tyr-151) of *Thermus thermophilus* A4, which is the first known structure of glycoside hydrolases family 42. A catalytic glutamic acid (Glu-537) of *E. coli*  $\beta$ -galactosidase was shown to be labeled by the same procedure, suggesting that the modification site with this irreversible substrate might depend both on the nucleophilicity of the amino acids and their spatial arrangement in the individual catalytic cavity. Similarly, a Glu-259 in 257TLEE260 was selectively labeled using *B. circulans*  $\beta$ -galactosidase, indicating that Glu-259 is one of the nucleophiles in the active site. The present method can be readily extended to other glycosidases and should greatly aid the high throughput proteomics of many glycoside hydrolases showing both retaining- and inverting-type mechanisms.

IT 805262-61-7P

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP



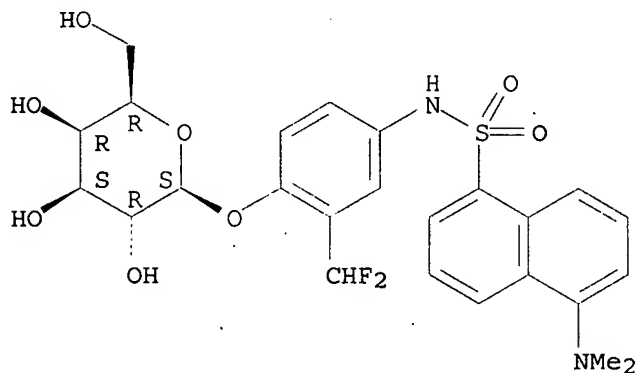
(Preparation); USES (Uses)

(fluorescent label-containing suicide substrate addresses  
catalytic role of active site Arg and Glu residues in bacterial  
 $\beta$ -galactosidases)

RN 805262-61-7 CAPLUS

CN 1-Naphthalenesulfonamide, N-[3-(difluoromethyl)-4-( $\beta$ -D-  
galactopyranosyloxy)phenyl]-5-(dimethylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



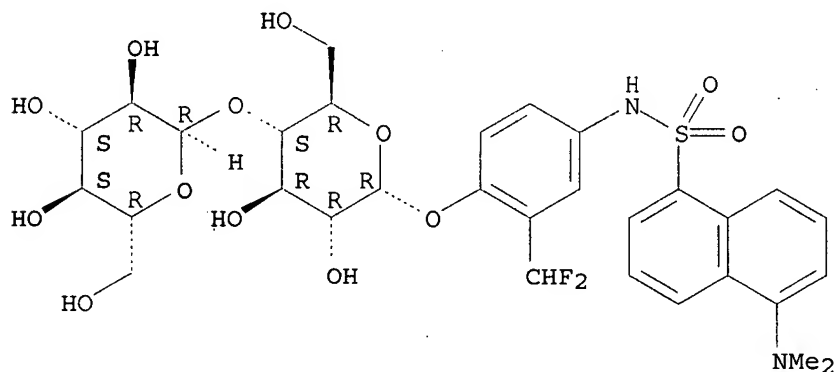
IT 805262-69-5P

RL: PNU (Preparation, unclassified); PREP (Preparation)  
(fluorescent label-containing suicide substrate addresses  
catalytic role of active site Arg and Glu residues in bacterial  
 $\beta$ -galactosidases)

RN 805262-69-5 CAPLUS

CN 1-Naphthalenesulfonamide, N-[3-(difluoromethyl)-4-[(4-O- $\alpha$ -D-  
glucopyranosyl- $\alpha$ -D-glucopyranosyl)oxy]phenyl]-5-(dimethylamino)-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



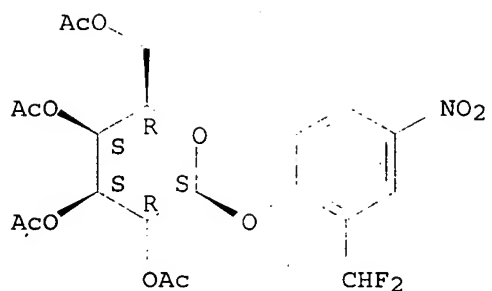
IT 188434-25-5P 328401-17-8P 805262-52-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(fluorescent label-containing suicide substrate addresses  
catalytic role of active site Arg and Glu residues in bacterial  
 $\beta$ -galactosidases)

RN 188434-25-5 CAPLUS

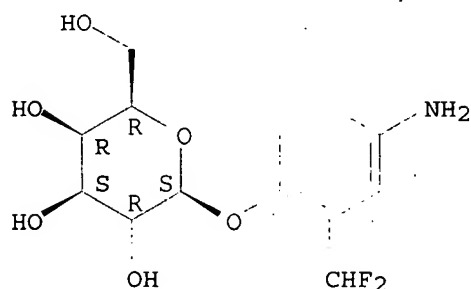
CN  $\beta$ -D-Galactopyranoside, 2-(difluoromethyl)-4-nitrophenyl,  
2,3,4,6-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



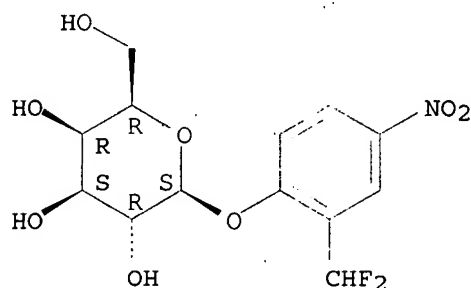
RN 328401-17-8 CAPLUS  
 CN  $\beta$ -D-Galactopyranoside, 4-amino-2-(difluoromethyl)phenyl (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



RN 805262-52-6 CAPLUS  
 CN  $\beta$ -D-Galactopyranoside, 2-(difluoromethyl)-4-nitrophenyl (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:314097 CAPLUS  
 DOCUMENT NUMBER: 142:70626  
 TITLE: Development of mechanism-based fluorescence affinity  
 labeling reagent for  $\beta$ -galactosidase as  
 proteomics tool: A detailed analysis using MALDI-TOF  
 mass spectrometry  
 AUTHOR(S): Kuroguchi, Masaki; Iwata, Kazumichi; Monde, Kenji;  
 Niikura, Kenichi; Lee, Yuan Chuan; Nishimura,  
 Shin-Ichiro  
 CORPORATE SOURCE: Division of Biological Sciences, Graduate School of  
 Science, Hokkaido University, Japan  
 SOURCE: Peptide Science (2003), Volume Date 2004, 40th,

113-114  
CODEN: PSCIFQ; ISSN: 1344-7661  
Japanese Peptide Society

PUBLISHER:  
DOCUMENT TYPE:  
LANGUAGE:

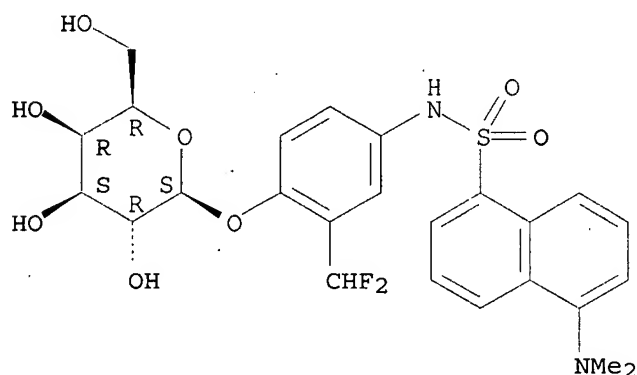
AB We have prepared mechanism-based fluorescent affinity labeling for useful identification and characterization of  $\beta$ -galactosidase and examined the binding site on  $\beta$ -galactosidase and labeling ability for nucleophile group of enzyme after cleavage of glycoside linkage. We also investigated whether the substance could label various types of  $\beta$ -galactosidase (from *Aspergillus oryzae*, *Escherichia coli*., bovine liver, *Xanthomonas manihotis*, *Bacillus circulans*) using GPC monitored by fluorescence photometer. All these enzyme could specifically be detected by fluorescence. Then, as for *Xanthomonas manihotis*, we characterized labeling site of galactosidase via proteomics techniques such as peptide mapping by proteolytic digestion and the followed MS/MS anal. This labeling compound was attached to the side chain of an Arg near the active site.

IT 805262-61-7  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (development of mechanism-based fluorescence affinity labeling reagent for  $\beta$ -galactosidase as proteomics tool)

RN 805262-61-7 CAPLUS

CN 1-Naphthalenesulfonamide, N-[3-(difluoromethyl)-4-( $\beta$ -D-galactopyranosyloxy)phenyl]-5-(dimethylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:190567 CAPLUS

DOCUMENT NUMBER: 139:145678

TITLE: Activity-based fluorescent probes that target phosphatases

AUTHOR(S): Zhu, Qing; Huang, Xuan; Chen, Grace Y. J.; Yao, Shao Q.

CORPORATE SOURCE: Department of Chemistry, National University of Singapore, Singapore, 117543, Singapore

SOURCE: Tetrahedron Letters (2003), 44(13), 2669-2672

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

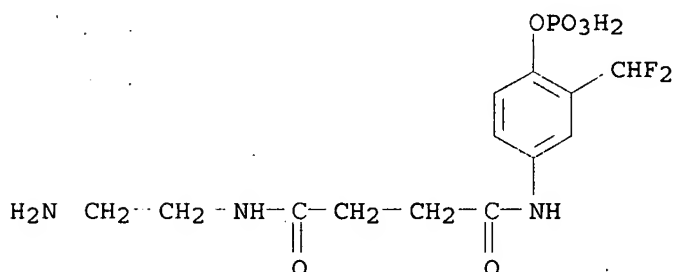
LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:145678

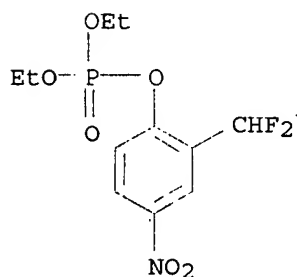
AB We have successfully designed and synthesized two fluorescently-labeled, activity-based probes, Probe 1 and Probe 2, which were shown to label protein tyrosine phosphatases specifically, as well as other types of phosphatases. The probes were not reactive towards the other

non-phosphatase enzymes tested. These probes may find potential applications in large-scale proteomic expts. whereby subclasses of proteins may be selectively identified.

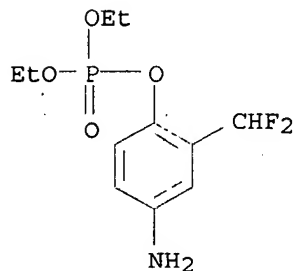
IT 570391-81-0DP, conjugated with Cy3  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (activity-based fluorescent probes that target phosphatases)  
 RN 570391-81-0 CAPLUS  
 CN Butanediamide, N-(2-aminoethyl)-N'-[3-(difluoromethyl)-4-(phosphonoxy)phenyl]- (9CI) (CA INDEX NAME)



IT 429692-36-4P 429692-37-5P 570391-83-2P  
 570391-84-3DP, conjugated with Cy3  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (activity-based fluorescent probes that target phosphatases)  
 RN 429692-36-4 CAPLUS  
 CN Phosphoric acid, 2-(difluoromethyl)-4-nitrophenyl diethyl ester (9CI) (CA INDEX NAME)

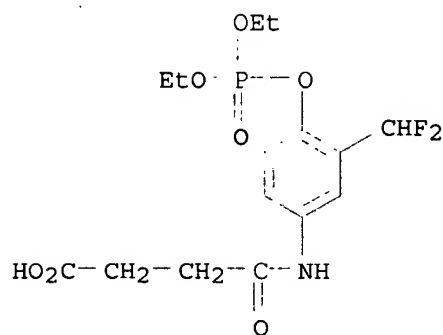


RN 429692-37-5 CAPLUS  
 CN Phosphoric acid, 4-amino-2-(difluoromethyl)phenyl diethyl ester (9CI) (CA INDEX NAME)



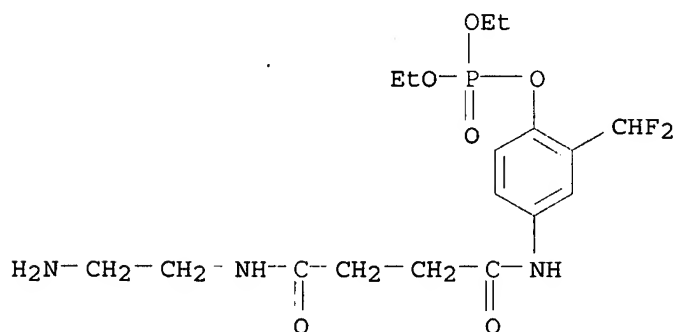
RN 570391-83-2 CAPLUS  
 CN Butanoic acid, 4-[[4-[(diethoxyphosphinyloxy)-3-

(difluoromethyl)phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



RN 570391-84-3 CAPLUS

CN Phosphoric acid, 4-[[4-[(2-aminoethyl)amino]-1,4-dioxobutyl]amino]-2-(difluoromethyl)phenyl diethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:790743 CAPLUS

DOCUMENT NUMBER: 130:35356

TITLE: Assays employing electrochemiluminescent labels and electrochemiluminescence quenchers

INVENTOR(S): Richter, Mark M.; Powell, Michael J.; Belisle, Christopher M.

PATENT ASSIGNEE(S): Boehringer Mannheim Corp., USA

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

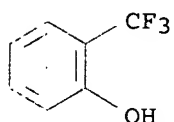
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9853316	A1	19981126	WO 1998-US9552	19980511
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 2001023063	A1	20010920	US 1998-74472	19980507
CA 2261758	A1	19981126	CA 1998-2261758	19980511
EP 914612	A1	19990512	EP 1998-923375	19980511
EP 914612	B1	20030716		
R: CH, DE, ES, FR, GB, IT, LI				

JP 2000517058	T	20001219	JP 1998-550421	19980511
JP 3951031	B2	20070801		
EP 1359416	A2	20031105	EP 2003-15594	19980511
EP 1359416	A3	20040519		
R: CH, DE, ES, FR, GB, IT, LI				
ES 2202860	T3	20040401	ES 1998-923375	19980511
US 2006035248	A1	20060216	US 2005-124407	20050509
PRIORITY APPLN. INFO.:			US 1997-47605P	P 19970523
			US 1998-74472	A3 19980507
			EP 1998-923375	A3 19980511
			WO 1998-US9552	W 19980511

AB This invention pertains to the general field of chemical and biol. assays which employ electrochemiluminescence (ECL), also referred to as electrogenerated chemiluminescence. More particularly, the present invention pertains to certain classes of chemical moieties which strongly quench ECL, and the use of these ECL quenchers in combination with ECL labels, for example, in ECL assay methods which employ an ECL quencher and an ECL label. One class of such quenching moieties are those which comprise at least one benzene moiety. Sub-classes of such quenching moieties are those which comprise at least one phenol moiety, quinone moiety, benzene carboxylic acid, and/or benzene carboxylate moiety.

IT 444-30-4, o-Trifluoromethylphenol  
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
 (assays employing electrochemiluminescent labels and electrochemiluminescence quenchers)  
 RN 444-30-4 CAPLUS  
 CN Phenol, 2-(trifluoromethyl)- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 14 and (hydrolytic enzyme)  
 44591 HYDROLYTIC  
 4 HYDROLYTICS  
 44595 HYDROLYTIC  
 (HYDROLYTIC OR HYDROLYTICS)  
 825251 ENZYME  
 469820 ENZYMES  
 1039299 ENZYME  
 (ENZYME OR ENZYMES)  
 4392 HYDROLYTIC ENZYME  
 (HYDROLYTIC(W) ENZYME)  
 L7 0 L4 AND (HYDROLYTIC ENZYME)

=> s 14 and hydrolytic  
 44591 HYDROLYTIC  
 4 HYDROLYTICS  
 44595 HYDROLYTIC  
 (HYDROLYTIC OR HYDROLYTICS)  
 L8 4 L4 AND HYDROLYTIC

=> s 18 not 16  
 L9 4 L8 NOT L6

=> d 19 ibib abs hitstr tot

L9 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:602620 CAPLUS

DOCUMENT NUMBER: 147:189225

TITLE: Bis[(para-methoxy)benzyl] phosphonate prodrugs with

improved stability and enhanced cell penetration

AUTHOR(S): Dang, Qun; Liu, Yan; Rydzewski, Robert M.; Brown,

Brian S.; Robinson, Edward; van Poelje, Paul D.;

Colby, Timothy J.; Erion, Mark D.

CORPORATE SOURCE: Department of Chemistry, Metabasis Therapeutics, Inc.,

La Jolla, CA, 92037, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2007),

17(12), 3412-3416

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of substituted bis[(para-methoxy)benzyl] (bisPMB) esters of 1-naphthalenylmethylphosphonic acid (NMPA) were prepared and evaluated as phosphonate prodrugs. Reaction of the 1-naphthylmethylphosphonic dichloridate  $C_{10}H_7CH_2POCl_2$  with benzyl alcs.  $HOCH_2C_6H_2-3-R_1-4-OR_2-5-R_3$  afforded the corresponding diesters,  $C_{10}H_7CH_2PO(OCH_2C_6H_2-3-R_1-4-OR_2-5-R_3)_2$  (4a-m;  $R_2 = Me, Et, Pr$ ;  $R_1 = H, F, Cl, NO_2, CN, CF_3, Ac, OMe$ ;  $R_3 = H, Cl, Br, OMe$ ), which were tested for their prodrug features by measurement of their half-life times ( $t_{1/2}$ ) in rat plasma and of intracellular concns. of the free NMPA acid induced by administration of the compds. 4. The prodrug activity is related to facile penetration of the esters through cellular membrane and rapid cytochrome P 450-induced hydrolysis of the phosphonates in the hepatocytes. The esters 4b and 4c with significantly improved aqueous stability were identified that also resulted in increased intracellular levels of NMPA following prodrug incubation with primary rat hepatocytes.

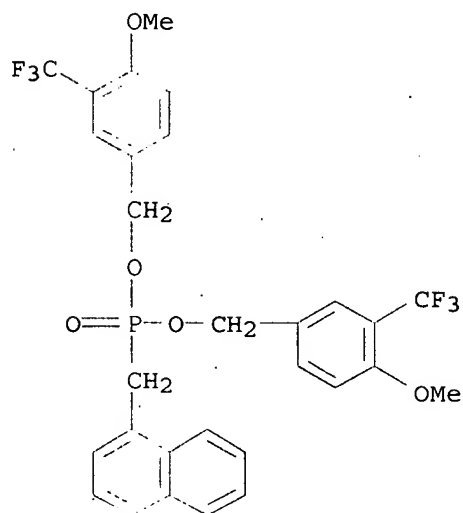
IT 944441-64-9P

RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(preparation of bis-4-methoxybenzyl phosphonates as models for prodrug cell penetration and hydrolytic activation)

RN 944441-64-9 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

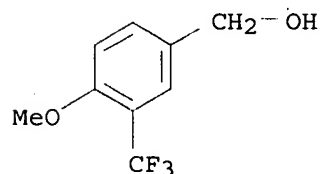


IT 261951-88-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of bis-4-methoxybenzyl phosphonates as models for prodrug cell

penetration and hydrolytic activation)  
RN 261951-88-6 CAPLUS  
CN Benzenemethanol, 4-methoxy-3-(trifluoromethyl)- (CA INDEX NAME)



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:267360 CAPLUS

DOCUMENT NUMBER: 146:434187

TITLE: Tandem optimization of target activity and elimination of mutagenic potential in a potent series of N-aryl bicyclic hydantoin-based selective androgen receptor modulators

AUTHOR(S): Hamann, Lawrence G.; Manfredi, Mark C.; Sun, Chongqing; Krystek, Stanley R.; Huang, Yanting; Bi, Yingzhi; Augeri, David J.; Wang, Tammy; Zou, Yan; Betebenner, David A.; Fura, Aberra; Seethala, Ramakrishna; Golla, Rajasree; Kuhns, Joyce E.; Lupisella, John A.; Darienzo, Celia J.; Custer, Laura L.; Price, Jennifer L.; Johnson, James M.; Biller, Scott A.; Zahler, Robert; Ostrowski, Jacek  
CORPORATE SOURCE: Pharmaceutical Research Institute, Bristol-Myers Squibb, Princeton, NJ, 08543-5400, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(7), 1860-1864

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:434187

AB Pharmacokinetic studies in cynomolgus monkeys with a novel prototype selective androgen receptor modulator revealed trace amts. of an aniline fragment released through hydrolytic metabolism. This aniline fragment was determined to be mutagenic in an Ames assay. Subsequent concurrent optimization for target activity and avoidance of mutagenicity led to the identification of a pharmacol. superior clin. candidate without mutagenic potential.

IT 627530-78-3P

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

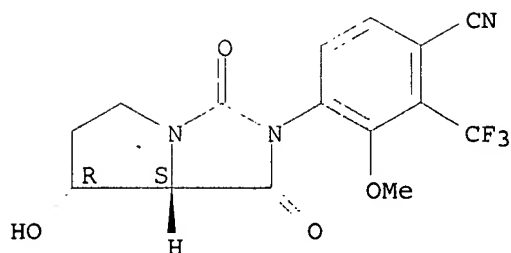
(tandem optimization of target activity and elimination of mutagenic potential in series of N-aryl bicyclic hydantoin-based androgen receptor modulators)

RN 627530-78-3 CAPLUS

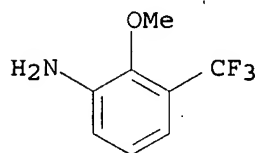
CN Benzonitrile, 3-methoxy-4-[(7R,7aS)-tetrahydro-7-hydroxy-1,3-dioxo-1H-pyrrolo[1,2-c]imidazol-2(3H)-yl]-2-(trifluoromethyl)- (CA INDEX NAME)

Absolute stereochemistry.



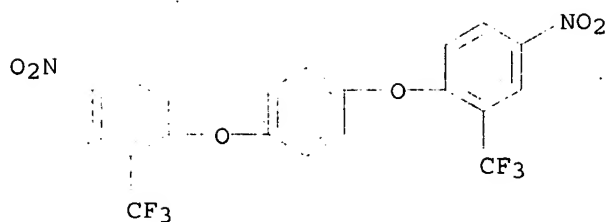


IT 634187-08-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (tandem optimization of target activity and elimination of mutagenic  
 potential in series of N-aryl bicyclic hydantoin-based androgen  
 receptor modulators)  
 RN 634187-08-9 CAPLUS  
 CN Benzenamine, 2-methoxy-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

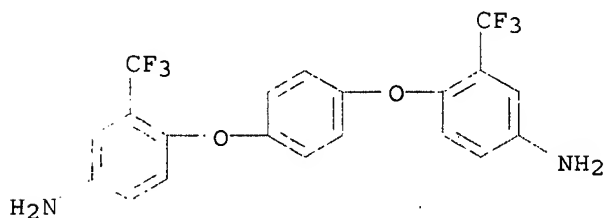


REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

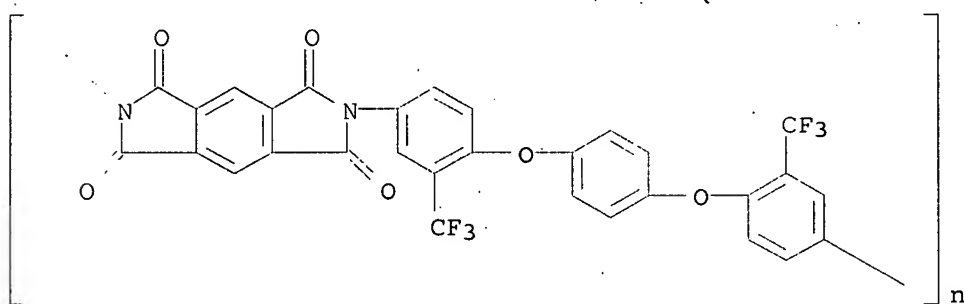
L9 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:32668 CAPLUS  
 DOCUMENT NUMBER: 134:237921  
 TITLE: New soluble fluorinated polyimides  
 AUTHOR(S): Xie, Kun; Zhang, Shu Ying; Liu, Jin Gang; He, Min Hui;  
 Yang, Shi Yong  
 CORPORATE SOURCE: State Key Laboratory of Engineering Plastics, Center  
 for Molecular Science, Institute of Chemistry, Chinese  
 Academy of Sciences, Beijing, 100080, Peop. Rep. China  
 SOURCE: Chinese Chemical Letters (2000), 11(12), 1049-1052  
 CODEN: CCLEE7; ISSN: 1001-8417  
 PUBLISHER: Chinese Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The synthesis and properties of a class of soluble fluorine-containing aromatic  
 polyimides are described. The polyimides show desirable features of  
 materials for microelectronics applications.  
 IT 302781-16-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (monomer synthesis; new soluble fluorinated polyimides)  
 RN 302781-16-4 CAPLUS  
 CN Benzene, 1,4-bis[4-nitro-2-(trifluoromethyl)phenoxy]- (CA INDEX NAME)



IT 94525-05-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer; new soluble fluorinated polyimides)  
 RN 94525-05-0 CAPLUS  
 CN Benzenamine, 4,4'-[1,4-phenylenebis(oxy)]bis[3-(trifluoromethyl)- (CA INDEX NAME)



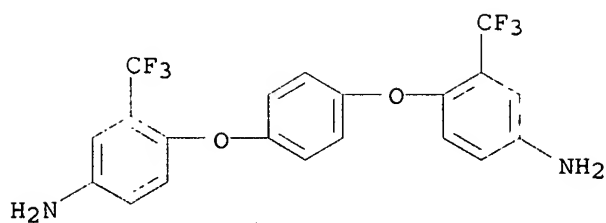
IT 94504-72-0P 94525-06-1P 138283-03-1P  
 143930-96-5P 302781-17-5P 302781-18-6P  
 330160-46-8P 330160-47-9P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (new soluble fluorinated polyimides)  
 RN 94504-72-0 CAPLUS  
 CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl) [3-(trifluoromethyl)-1,4-phenylene]oxy-1,4-phenyleneoxy[2-(trifluoromethyl)-1,4-phenylene]] (CA INDEX NAME)



RN 94525-06-1 CAPLUS  
 CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[3-(trifluoromethyl)benzenamine] (CA INDEX NAME)

CM 1

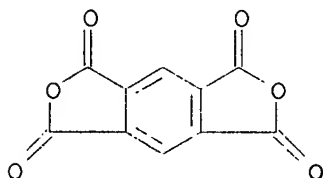
CRN 94525-05-0  
 CMF C20 H14 F6 N2 O2



CM 2

CRN 89-32-7

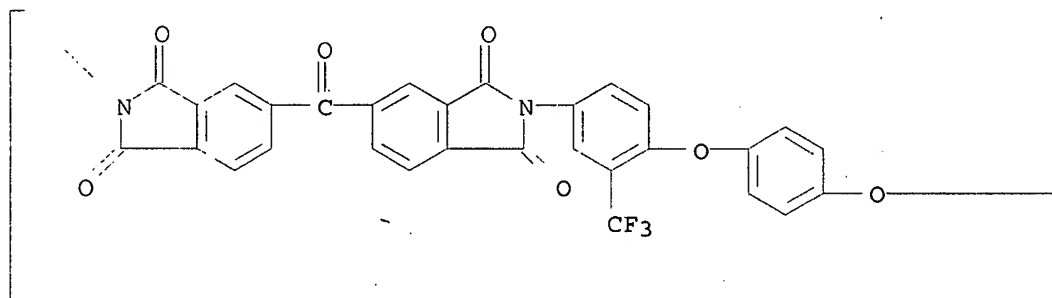
CMF C10 H2 O6



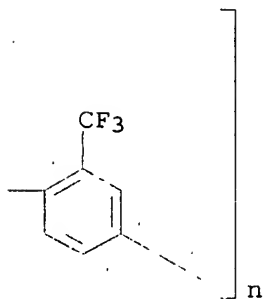
RN 138283-03-1 CAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[3-(trifluoromethyl)-1,4-phenylene]oxy-1,4-phenyleneoxy[2-(trifluoromethyl)-1,4-phenylene]] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



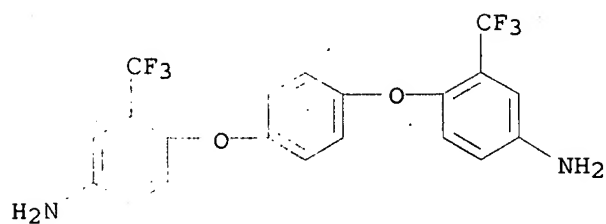
RN 143930-96-5 CAPLUS

CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[3-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 94525-05-0

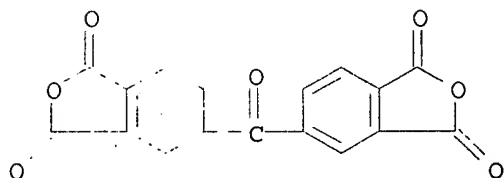
CMF C20 H14 F6 N2 O2



CM 2

CRN 2421-28-5

CMF C17 H6 O7



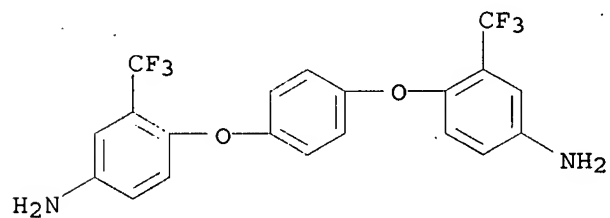
RN 302781-17-5 CAPLUS

CN 1,3-Isobenzofurandione, 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[3-(trifluoromethyl)benzenamine] (CA INDEX NAME)

CM 1

CRN 94525-05-0

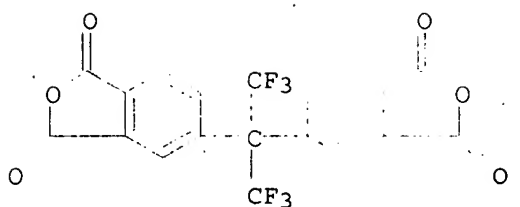
CMF C20 H14 F6 N2 O2



CM 2

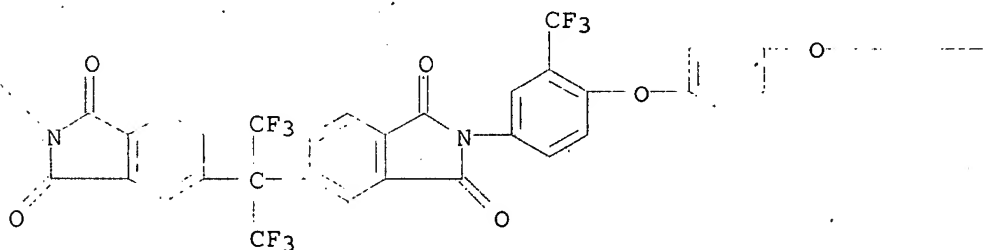
CRN 1107-00-2

CMF C19 H6 F6 O6

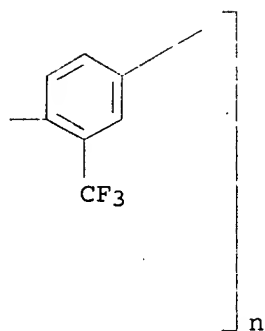


RN 302781-18-6 CAPLUS  
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[3-(trifluoromethyl)-1,4-phenylene]oxy-1,4-phenyleneoxy[2-(trifluoromethyl)-1,4-phenylene]] (CA INDEX NAME)

PAGE 1-A



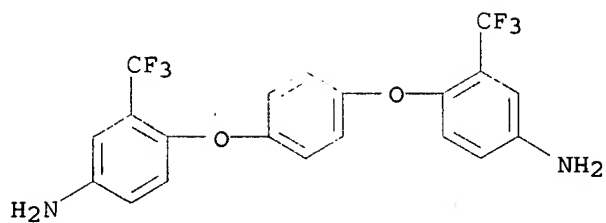
PAGE 1-B



RN 330160-46-8 CAPLUS  
 CN 1,3-Isobenzofurandione, 5,5'-oxybis-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[3-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

CM 1

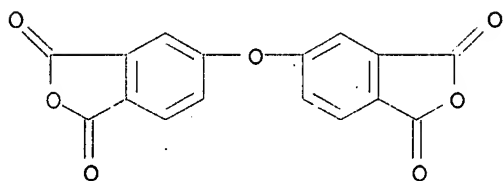
CRN 94525-05-0  
 CMF C20 H14 F6 N2 O2



CM 2

CRN 1823-59-2

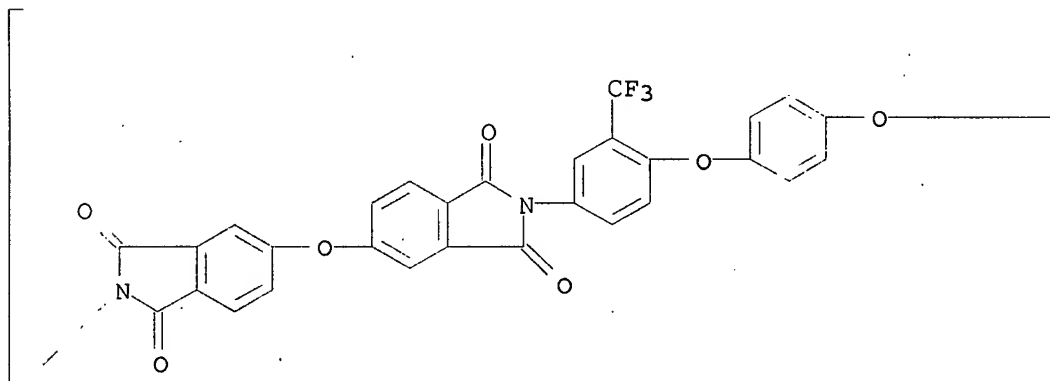
CMF C16 H6 O7



RN 330160-47-9 CAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[3-(trifluoromethyl)-1,4-phenylene]oxy-1,4-phenyleneoxy[2-(trifluoromethyl)-1,4-phenylene]] (9CI) (CA INDEX NAME)

PAGE 1-A



CF<sub>3</sub>

n

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1961:137078 CAPLUS

DOCUMENT NUMBER: 55:137078

ORIGINAL REFERENCE NO.: 55:25775f-i,25776a-d

TITLE: Fluorinated aromatic amino acids. II. 2- and 3-Trifluoromethyltyrosines. Hydrolytic stability of the trifluoromethyl group on the aromatic nucleus

AUTHOR(S): Filler, Robert; Novar, Herman

CORPORATE SOURCE: Illinois Inst. of Technol., Chicago

SOURCE: Journal of Organic Chemistry (1961), 26, 2707-10

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 55:137078

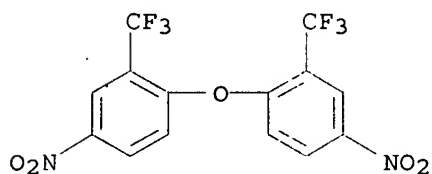
AB cf. CA 54, 24520h. 2-Trifluoromethyl-DL-tyrosine (I) was prepared (17%) by the reaction of 2-trifluoromethyl-4-hydroxybenzenediazonium chloride (II) with acrylic acid (III), followed by ammonolysis. Attempts to prepare I via the azlactone route failed. 3-Trifluoromethyl-DL-tyrosine (IV) could not be prepared by either of these ways, although 3-trifluoromethyl-4-methoxy-DL-phenylalanine (V) was obtained in impure form by the Meerwein route. The critical factor in the failure to synthesize IV was the hydrolytic instability (in both acid and alkaline solution) of the trifluoromethyl group

o- to an OH group. o-Chlorobenzotrifluoride (100 g.), 150 cc. H<sub>2</sub>SO<sub>4</sub>, and 100 cc. HNO<sub>3</sub> stirred 18 hrs. gave 109 g. 2-chloro-5-nitrobenzotrifluoride (VI), b<sub>8</sub> 100°, n<sub>30D</sub> 1.5031. VI (50 g.) in 150 cc. 95% alc. reduced by H (0.1 g. PtO<sub>2</sub>, mixture shaken 3 hrs. at room temperature) gave 33 g. 2-chloro-5-aminobenzotrifluoride, b<sub>5</sub> 106°, n<sub>24.5D</sub> 1.5118. VI (10 g.) refluxed 5 hrs. with 6N KOH, acidified, and recrystd. gave 5-nitrosalicylic acid (VIa), m. 225-8°. When the conditions of this reaction were varied, no reaction occurred or the same product was obtained. 2-Hydroxy-5-nitrobenzotrifluoride (VII) was not detected. VI (45.2 g.) added dropwise to a solution of NaOMe (from 4.6 g. Na in 100 cc. MeOH) and the mixture stirred overnight at room temperature and acidified gave

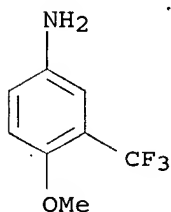
38 g. 2-methoxy-5-nitrobenzotrifluoride (VIII), m. 79-9.5° (95% alc.). VI (80 g.) added to 50 g. KOH in 400 cc. MeOH, the mixture stirred 15 min. at room temperature, 6N HCl added, and the mixture cooled gave 75 g. VIII.

VIII in AcOH refluxed 4 days with 48% HBr, the mixture extracted with Et<sub>2</sub>O, and the extract evaporated and worked up gave VIa. VIII (7 g.) in 100 cc. 95% alc. reduced by H over 0.5 g. 5% Pd-C gave 4.9 g. 2-methoxy-5-aminobenzotrifluoride (IX), m. 59-60°. IX.HCl mixed with excess

48% HBr and treated at 0° with aqueous NaNO<sub>2</sub> gave 2-methoxy-5-bromobenzotrifluoride, b<sub>30</sub> 120°, n<sub>D</sub><sup>20</sup> 1.4907. VI (75 g.) shaken 18 hrs. at 100° with liquid NH<sub>3</sub> in a bomb gave 62 g. 2-amino-5-nitrobenzotrifluoride (X), m. 91.5-3.0° (C<sub>6</sub>H<sub>6</sub>-ligroine). X was converted to 2-bromo-5-nitrobenzotrifluoride via the Sandmeyer reaction (b<sub>12</sub> 125-30°, n<sub>D</sub><sup>20</sup> 1.5263). X (21 g.) with 50 cc. concentrated H<sub>2</sub>SO<sub>4</sub> and 100 cc. H<sub>2</sub>O treated at -5° with 7 g. NaNO<sub>2</sub> in 20 cc. H<sub>2</sub>O, stirred overnight at room temperature, and extracted with Et<sub>2</sub>O gave an orange solid, m. 172.5-4.0°. VI (42 g.) added dropwise to 10 g. Na in 200 cc. PhCH<sub>2</sub>OH, the mixture stirred 1 hr. at room temperature and acidified, the solid in 150 cc. Et<sub>2</sub>O extracted with 5% NaOH, the Et<sub>2</sub>O evaporated, and solid crystallized gave 33 g. 2,2'-bistrifluoromethyl-4,4'-dinitrodiphenyl ether, m. 141-1.5°. The expected product, the benzyl ether of VII, was not detected. 2-Nitro-5-hydroxybenzotrifluoride (40 g.) in 100 cc. 95% alc. reduced by H (0.5 g. 5% Pd-C) and the mixture shaken 3 hrs. at room temperature and evaporated gave 29.5 g. 2-amino-5-hydroxybenzotrifluoride (XI), m. 154.5-5.5° (95% alc.). NaOAc (8.5 g.), 3 g. CuCl, 7.2 g. III, and 75 cc. Me<sub>2</sub>CO treated in a dry ice-Me<sub>2</sub>CO bath with a mixture of II (prepared from 20 cc. concentrated HCl and 10 cc. H<sub>2</sub>O with 17.7 g. XI previously treated with 7 g. NaNO<sub>2</sub> in 20 cc. H<sub>2</sub>O), the mixture stirred 4 hrs. at room temperature and shaken with Et<sub>2</sub>O and H<sub>2</sub>O, the aqueous layer discarded, then washed with 10% NaOH, and the alkaline solution acidified and evaporated gave a residue after removal of III. This residue dissolved in 300 cc. concentrated NH<sub>4</sub>OH, the mixture shaken 4 days at room temperature, heated on a steam bath, concentrated, and treated with 95% alc., and the product precipitated gave 4.25 g. I, m. 212-25° (decomposition).  
 IT 344-47-8P, Ether, bis(α,α,α-trifluoro-4-nitro-o-tolyl) 393-15-7P, p-Anisidine, 3-(trifluoromethyl)-654-76-2P, Anisole, 4-nitro-2-(trifluoromethyl)-1514-11-0P, Anisole, 4-bromo-2-(trifluoromethyl)-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 344-47-8 CAPLUS  
 CN Benzene, 1,1'-oxybis[4-nitro-2-(trifluoromethyl)- (CA INDEX NAME)]



RN 393-15-7 CAPLUS  
 CN Benzenamine, 4-methoxy-3-(trifluoromethyl)- (CA INDEX NAME)



RN 654-76-2 CAPLUS